

PROSPECTUS SUPPLEMENT
(To Prospectus dated May 17, 2019)



**Warrants to purchase up to 142,711 shares of common stock
and
Up to 142,711 shares of common stock issuable upon the exercise of the Warrants**

As previously disclosed, we entered into that certain Agreement and Plan of Merger dated January 3, 2019 (as amended, the “Merger Agreement”) by and among Flex Pharma, Inc., a Delaware corporation, Falcon Acquisition Sub, LLC, a Delaware limited liability company and wholly owned subsidiary of Flex Pharma, Inc., and Salarium Pharmaceuticals, LLC. Under the terms of the Merger Agreement, on July 19, 2019, we distributed an aggregate of 18,069,476 rights (each a “Right”) to receive a warrant to purchase shares of our common stock (each a “Warrant”) to our shareholders for every share of common stock that they held as of the close of business on July 18, 2019. The Rights entitle the holders to a number of Warrants that are exercisable into 142,711 shares of our common stock in the aggregate or 0.0079 shares of common stock per Warrant. If a fractional share interest arises upon any exercise or conversion of the Warrants, we will eliminate such fractional share interest by paying an amount equal to the fractional interest by the fair market value of a full share of our common stock.

The Warrants are exercisable beginning on the date of this prospectus supplement and continuing until January 20, 2025. The Warrants may be exercised for \$15.17 per share of our common stock (or \$0.1198 per Warrant) and may be deemed exercised on a cashless basis at our discretion at the closing of a sale of our common stock with gross proceeds of at least \$10,000,000.

Our common stock is listed on The Nasdaq Capital Market under the symbol “SLRX.” On June 30, 2021, the last reported sale price of our common stock on The Nasdaq Capital Market was \$1.06.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading “Risk Factors” beginning on page S-6 of this prospectus, and under similar headings in any amendments or supplements to this prospectus.

This is not an underwritten offering and there will be no underwriters’ discounts or commissions. The gross proceeds (before expenses) to us if the Warrants are exercised in full in cash will be \$0.1198 per Warrant, and the aggregate gross proceeds (before expenses) to us will be approximately \$2,164,926.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

Prospectus Supplement dated July 1, 2021.

TABLE OF CONTENTS

	Page
Prospectus Supplement	
Prospectus Supplement Summary	S-1
The Offering	S-4
Risk Factors	S-6
Special Note Regarding Forward-Looking Statements	S-8
Use of Proceeds	S-10
Dilution	S-11
Description of Securities	S-15
Plan of Distribution	S-19
Legal Matters	S-20
Experts	S-20
Incorporation of Certain Information By Reference	S-21
Prospectus	
About this Prospectus	i
Prospectus Summary	1
Risk Factors	6
Special Note Regarding Forward-Looking Statements	7
Use of Proceeds	9
Description of Capital Stock	10
Description of Debt Securities	15
Description of Warrants	21
Legal Ownership of Securities	23
Plan of Distribution	26
Legal Matters	28
Experts	28
Where You can find More Information	29
Incorporation of Certain Information by Reference	30

ABOUT THIS PROSPECTUS

This document is in two parts. The first part is this prospectus supplement, which describes the terms of the offering and also adds to and updates information contained in the accompanying prospectus as well as the documents incorporated by reference into this prospectus supplement and the accompanying prospectus.

The second part, the accompanying prospectus, gives more general information about securities we may offer from time to time, some of which does not apply to the Warrants and common stock underlying the Warrants that we are offering. To the extent any inconsistency or conflict exists between the information included in this prospectus supplement and the information included in the accompanying prospectus, the information included or incorporated by reference in this prospectus supplement updates and supersedes the information in the accompanying prospectus.

You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. The information which appears or is incorporated by reference in this prospectus may only be accurate as of the date hereof or the date of the document in which incorporated information appears. Our business, financial condition, results of operations and prospects may have changed since the date of such information.

It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus in making your investment decision. You should also read and consider the information contained in the documents identified under the headings “Incorporation of Certain Information by Reference.”

Unless otherwise indicated or the context otherwise requires, the terms the “we,” “us,” “our,” the “Company” and “Salarius” and similar terms refer to Salarius Pharmaceuticals, Inc., a Delaware corporation, and its consolidated subsidiaries.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information about us and this offering. Because it is a summary, it does not contain all of the information that you should consider before investing. Before investing in our common stock, you should read this entire prospectus supplement and the accompanying prospectus carefully, including the "Risk Factors," and the financial statements and accompanying notes and other information incorporated by reference in this prospectus supplement and the accompanying prospectus.

Company Overview

We are a clinical-stage biopharmaceutical company focused on developing effective treatments for cancers with high, unmet medical need. Specifically, we are developing treatments for cancers caused by dysregulated gene expression, i.e., genes that are incorrectly turned on or off. The field concerned with gene expression regulation is called 'epigenetics'. As cancers are often diseases driven by gene dysregulation, epigenetics is an area of interest for cancer treatment. Our lead epigenetic based technology, seclidemstat ("SP-2577"), may treat cancers by restoring correct gene expression.

In 2011, Salarius licensed SP-2577 and related compounds from the University of Utah Research Foundation. SP-2577 is a small molecule that inhibits the epigenetic enzyme lysine specific demethylase 1 ("LSD1"). LSD1's enzymatic activity can cause genes to turn on or off and thereby affect the cell's gene expression and overall activity. In addition, LSD1 can act via its scaffolding properties (protein-protein interactions), independently of its enzymatic function, to alter gene expression and modulate cell fate. In healthy cells, LSD1 is necessary for stem cell maintenance and normal cell development processes. However, in several cancers LSD1 is highly expressed and acts to incorrectly silence or activate genes leading to disease progression. High levels of LSD1 expression are often associated with aggressive cancer phenotypes and poor patient prognosis. Hence, development of targeted LSD1 inhibitors is of interest for the treatment of various cancers. SP-2577 uses a novel, reversible mechanism to effectively inhibit LSD1's enzymatic and scaffolding properties and thereby treat and prevent cancer progression.

Our first indication of interest for SP-2577 is a devastating bone and soft-tissue cancer called Ewing sarcoma. Ewing sarcoma mostly afflicts adolescents and young adults, with the median age of diagnosis being 15. The most commonly expressed fusion oncoprotein in Ewing sarcoma is the EWS-FLI fusion protein, which is present in approximately 85% of Ewing sarcoma cases. The LSD1 enzyme associates with EWS-FLI (and other E26 Transformation-Specific ("ETS") fusion proteins) and is thought to promote tumor growth. We believe SP-2577 helps inhibit EWS-FLI activity by disrupting EWS-FLI from associating with LSD1 and other proteins that are necessary for its cancer promoting activity. Therefore, we believe that SP-2577 can potentially reverse the cancer promoting gene expression and thereby possibly prevent Ewing sarcoma tumor growth and cause cancer cell death. Preclinical studies of SP-2577 in certain Ewing sarcoma animal models showed a significant tumor reduction as well as a significant survival benefit compared to untreated animals. Our ongoing Phase 1/2 clinical trial is designed as a single agent dose escalation followed by a dose expansion study. We recently announced the completion of the dose escalation portion of the trial. The dose expansion portion of the trial will study SP-2577 in combination with a common chemotherapeutic regimen, topotecan and cyclophosphamide ("TC"). Preclinical work showed the combination of SP-2577 and TC to be synergistic. The dose expansion portion can enroll up to 30 relapsed or refractory Ewing sarcoma patients and will assess the safety and tolerability of SP-2577 and TC and study preliminary efficacy of the regimen. In addition, we recently announced that the dose expansion phase of the Ewing sarcoma trial will be expanded to also include up to 30 relapsed or refractory patients with Ewing-related sarcomas, i.e., FET-rearranged or FET-translocated sarcomas. Similar to EWS-FLI in Ewing sarcoma, other FET family (EWS-, FUS-, TAF15-) fusion proteins in FET-rearranged sarcomas have been found to interact with LSD1. Consequently, SP-2577 has shown anti-proliferative activity in several FET-rearranged sarcoma cell lines. Patients with FET-rearranged sarcomas will be treated with single agent SP-2577.

As LSD1 can interact with over 60 regulatory proteins other than EWS-FLI, we believe that LSD1 may also play a critical role in progression of various other cancer types. These include both solid tumors and hematologic malignancies. Our second company-sponsored trial is a Phase 1/2 study of SP-2577 in Advanced Solid Tumors. The Advanced Solid Tumor (“AST”) trial is currently in the dose escalation phase of the trial. Preliminary data from this trial supports the expansion of SP-2577 in FET-rearranged sarcomas. In addition, we are conducting preclinical work with SP-2577 for use in hematologic cancers.

Recent data from “LSD1 Ablation Stimulates Anti-tumor Immunity and Enables Checkpoint Blockade” by W. Sheng, et al. and “Inhibition of Histone Lysine-specific Demethylase 1 Elicits Breast Tumor Immunity and Enhances Antitumor Efficacy of Immune Checkpoint Blockade” by Y. Qin, et al. suggests that LSD1 plays a role in tumor immune activity and can sensitize tumors to checkpoint inhibitors. These works have sparked interest in combining LSD1 inhibitors with checkpoint inhibitors. We are conducting preclinical work with SP-2577 in this area.

We have no products approved for commercial sale and have not generated any revenue from product sales. We have never been profitable and have incurred operating losses in each year since inception. We had an accumulated deficit of \$21.3 million as of March 31, 2021. Substantially all of our operating losses resulted from expenses incurred in connection with our research and development programs and from general and administrative costs associated with our operations.

Our financial statements are prepared using Generally Accepted Accounting Principles in the United States of America (“GAAP”) applicable to a going concern, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. Our financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts and classification of liabilities should we be unable to continue as a going concern.

We expect to continue to incur significant expenses and increasing operating losses for at least the next several years as we initiate and continue the clinical development of, and seek regulatory approval for, our product candidates, add personnel necessary to continue to operate as a public company upon closing of the merger, and work to develop an advanced clinical pipeline of product candidates. We expect that our operating losses will fluctuate significantly from quarter-to-quarter and year-to-year due to timing of clinical development programs and efforts to achieve regulatory approval.

As of March 31, 2021, the Cancer Prevention and Research Institution of Texas (“CPRIT”) fund matching requirements had been fully met. As of March 31, 2021, we have received an aggregate of \$11.3 million from the CPRIT grant. Approximately \$2.6 million of the remaining \$7.4 million CPRIT grant was for a castration-resistant prostate study. The Company has elected not to pursue this study, and accordingly this amount will no longer be available. The Company was approved for an extension with a contract end date of November 30, 2021.

We believe that our \$36.6 million in cash and cash equivalents on hand as of March 31, 2021, and the expected CPRIT funds available are sufficient to fund our anticipated operating and capital requirements through the completion of our current clinical trials in 2022 and beyond, however, we will continue to require substantial additional capital to continue our clinical development activities. Accordingly, we will need to raise substantial additional capital to continue to fund our operations as a whole. The amount and timing of our future funding requirements will depend on many factors, including the pace and results of our development, regulatory and commercialization efforts. Failure to raise capital as and when needed, on favorable terms or at all, would have a negative impact on our financial condition and our ability to develop and commercialize our product candidates and to fund our operations.

We intend, when required, to obtain additional capital through the sale of equity securities in one or more offerings or through issuances of debt instruments. We may also consider new collaborations or selectively partnering our technology. However, we cannot provide any assurance that we will be successful in accomplishing any of our plans to obtain additional capital or be able to do so on favorable terms or on terms acceptable to us.

Corporate Information

We were incorporated as Flex Pharma, Inc. ("Flex Pharma") in Delaware in February 2014. In July 2019, our wholly owned subsidiary, Falcon Acquisition Sub, LLC, merged with and into Salarius Pharmaceuticals, LLC ("Private Salarius"), with Private Salarius becoming our wholly owned subsidiary (the "Merger"), and we changed our name to Salarius Pharmaceuticals, Inc. Our principal executive offices are located at 2450 Holcombe Blvd., Suite X, Houston, TX 77021, and our telephone number is (832) 834-6992. Our website address is www.saliariuspharma.com. We do not incorporate the information on, or accessible through, our website into this prospectus, and you should not consider any information on, or accessible through, our website as part of this prospectus.

The Merger is deemed to be a reverse acquisition under the guidance of ASC 805 and, as such, Private Salarius has been determined to be the accounting acquirer in the Merger, but not the legal acquirer. As a result, upon consummation of the Merger, the historical financial statements of Private Salarius became the historical financial statements of Salarius, the combined company.

THE OFFERING

Warrants	We are offering Warrants to purchase up to 142,711 shares of our common stock. The Warrant will have an exercise price per share of common stock of \$15.17 (or \$0.1198 per Warrant), will be immediately exercisable and will expire on January 20, 2025.
Common stock issuable upon the exercise of the Warrants	We are offering up to 142,711 shares of our common stock for issuance upon the exercise of the Warrants.
Common stock outstanding before this offering	44,772,606 shares, assuming no exercise of the Warrants included in this offering
Common stock to be outstanding immediately after this offering	44,772,606 shares, assuming no exercise of the Warrants included in this offering
Use of proceeds	<p>The gross proceeds (before expenses) to us if the Warrants are exercised in full in cash will be \$15.17 per share of common stock, and the aggregate gross proceeds (before expenses) to us will be \$2,164,926.</p> <p>We intend to use the net proceeds from this offering, if any, for general corporate purposes, including working capital, research and development, and capital expenditures. See “Use of Proceeds” for additional information.</p>
Risk factors	Investing in our common stock involves significant risks. See “Risk Factors” on page S-6 of this prospectus supplement and under similar headings in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus for a discussion of the factors you should carefully consider before deciding to invest in our common stock.
Nasdaq symbol	“SLRX.”
No listing of Warrants	There is no established public trading market for the Warrants, and we do not expect an active trading market to develop. We do not intend to list the Warrants on any securities exchange or other trading market. Without an active trading market, the liquidity of the Warrants will be limited.

Unless otherwise indicated, the number of shares of common stock to be outstanding immediately after this offering is based on 44,772,606 shares outstanding as of May 26, 2021 and excludes as of such date:

- 1,603,972 shares of common stock issuable upon the exercise of outstanding stock options as of March 31, 2021, with a weighted average exercise price of \$2.75 per share;
- 1,020,690 shares of common stock reserved for future issuance under our 2015 Equity Incentive Plan (the “2015 Plan”) as of March 31, 2021;
- 178,599 shares of common stock reserved for future issuance under our 2015 Employee Stock Purchase Plan (the “ESPP”) (as well as any future increases in the number of shares of common stock reserved for future issuance pursuant to the evergreen provision of the ESPP);
- 42,928 shares of common stock issuable upon exercise of a warrant issued to Wedbush Securities Inc. (“Wedbrush”), with an exercise price of \$18.90 per share;
- 6,188 shares of common stock to be issued pursuant to a professional relations and consulting agreement dated December 9, 2019;

- 3,783,522 shares of common stock issuable upon the exercise of warrants issued in connection with our public offering completed on February 11, 2020 (the “February Offering”), with an exercise price of \$1.15 per share; and
- 3,964,065 shares of common stock issuable upon the exercise of warrants issued in a private placement to certain holders of warrants issued in the February Offering in connection with such holders agreeing to exercise their warrants from the February Offering in exchange for the Company agreeing to lower the exercise price of such warrants, completed on December 11, 2020 (the “Inducement Warrants”), with an exercise price of \$1.182 per share.

Unless otherwise indicated, all information contained in this prospectus supplement assumes no exercise of the outstanding options and warrants described above.

RISK FACTORS

Investing in our securities involves a high degree of risk. This prospectus supplement does not describe all of those risks. Before making an investment decision, you should carefully consider the risks described below and in our most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, as well as any amendments thereto reflected in subsequent filings, each of which are incorporated by reference in this prospectus supplement and the accompanying prospectus, and all of the other information in this prospectus supplement and the accompanying prospectus, including our financial statements and related notes incorporated by reference in this prospectus supplement and the accompanying prospectus. If any of these risks is realized, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the trading price of our common stock could decline and you could lose part or all of your investment. Additional risks and uncertainties that are not yet identified or that we think are immaterial may also materially harm our business, operating results, and financial condition and could result in a complete loss of your investment.

Risks Related to This Offering

Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.

Our management has significant flexibility in applying the net proceeds that we may receive from the exercise of the Warrants, if any. Because such proceeds are not required to be allocated to any specific investment or transaction, and therefore you cannot determine at this time the value or propriety of our application of those proceeds, you and other stockholders may not agree with our decisions. In addition, our use of the proceeds from this offering may not yield a significant return or any return at all for our stockholders. The failure by our management to apply these funds effectively could have a material adverse effect on our business, results of operations or financial condition. See “Use of Proceeds” for a further description of how management intends to apply the proceeds from this offering.

You will experience immediate dilution in the net tangible book value per share of the common stock you purchase.

As of March 31, 2021, we had a net tangible book value of approximately \$39.9 million, or \$0.89 per share of common stock, assuming no exercise of any warrants or options. Based on the current exercise price of the Warrants of \$15.17 per share of our common stock, and assuming exercise of all of the Warrants, as of that date persons exercising Warrants would experience immediate dilution of \$14.23 per share in the net tangible book value of the common stock. See “Dilution” below for a more detailed discussion of the dilution you will incur upon exercise of the Warrants.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering.

The Warrants will not be listed on any securities exchange and as such there will not be a public market for such securities.

There is no established public trading market for the Warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the Warrants on any securities exchange or trading system. Without an active market, the liquidity of the Warrants will be limited, and investors may be unable to liquidate their investments in Warrants.

The Warrants may never have any value.

The Warrants will be exercisable at any time until January 20, 2025 at an initial exercise price of \$15.17 per share of common stock. In the event that the price of a share of our common stock does not exceed the exercise price of the warrants during the period when the warrants are exercisable, the warrants may not have any value.

A warrant does not entitle the holder to any rights as common stockholders until the holder exercises the warrant for shares of our common stock.

Until you acquire shares of our common stock upon exercise of your warrants, the warrants will not provide you any rights as a common stockholder. Upon exercise of your warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs on or after the exercise date.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, and the documents we have filed with the SEC that are incorporated by reference in this prospectus supplement and the accompanying prospectus contain forward-looking statements that involve risks and uncertainties. These statements relate to future periods, future events, and our future operating or financial plans or performance. All statements other than statements of fact, including statements identified by words such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “plan,” “intend,” “expect,” and similar expressions are forward-looking statements, and include, but are not limited to, statements regarding the following:

- our ability to successfully initiate and complete clinical trials and regulatory submissions;
- expected dose escalation and dose expansion;
- expected number of additional clinical sites;
- expected cohort readouts;
- expected therapeutic options for SP-2577 and related effects;
- timing of development and future milestones;
- the development, expected timeline, and commercial potential of any product candidates;
- the effect of changes in macroeconomic factors beyond our control;
- competition in the markets in which we do business and our competitive advantages;
- our beliefs regarding our prospects for our business;
- the adequacy of our capital resources, our ability to raise additional financing, and the consequences if we fail to obtain adequate funding;
- our expectations as to funds remaining available under the CPRIT grant;
- our preliminary estimated financial results;
- our ability to compete;
- our beliefs regarding the attributes and anticipated customer benefits of our products;
- our ability to hire additional personnel and retain key personnel;
- our ability to expand and improve our sales performance and marketing activities;
- our ability to manage our expenditures and estimate future expenses, revenue, and operational requirements;
- our use of proceeds;
- the effect of changes to management judgments and estimates;
- the impact of any modification to our pricing practices in the future;
- our beliefs regarding our international operations;
- our ability to take adequate precautions against claims or lawsuits made by third parties, including alleged infringement of proprietary rights;
- the potential impact of foreign currency exchange rate fluctuations;

- our expected quarterly cash expenditures;
- the impact of accounting pronouncements and our critical accounting policies, judgments, estimates, models, and assumptions on our financial results; and
- our expectations with respect to revenue, cost of revenue, expenses, and other financial metrics.

We have based these forward-looking statements on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, strategy, short- and long-term business operations and objectives, and financial requirements. These statements are subject to known and unknown risks, uncertainties and assumptions that could cause actual results to differ materially from those projected or otherwise implied by the forward-looking statements, including the following: risks and uncertainties associated with our ability to manage our business plans, strategies, and outlooks and any business-related forecasts or projections; the availability of sufficient resources to meet our business objectives and operational requirements; the ability to project future cash utilization and reserves needed for contingent future liabilities and business operations; the fact that the results of earlier studies and trials may not be predictive of future clinical trial results; the ability to protect our intellectual property rights; risks related to the drug development and the regulatory approval process; the impact of competitive products and technological changes; the impact of new legislation or regulations, or of judicial decisions, on our business; legal and regulatory uncertainties; our ability to compete against third parties; the economic environment; our ability to manage future growth; the market price of our common stock; and foreign currency exchange rate fluctuations. You should not place undue reliance on these forward-looking statements.

We discuss in greater detail, and incorporate by reference into this prospectus supplement and the accompanying prospectus, many of these risks, uncertainties and assumptions under the heading “Risk Factors.” Additional cautionary statements or discussions of risks, uncertainties, and assumptions that could affect our results or the achievement of the expectations described in forward-looking statements are also contained in the documents we incorporate by reference into this prospectus supplement and the accompanying prospectus. Any forward-looking statement made by us in this prospectus supplement, the accompanying prospectus, or any of the documents incorporated by reference herein and therein speaks only as of the date on which it was made. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained in this prospectus supplement, the accompanying prospectus, or any of the documents incorporated by reference herein or therein to reflect any change in our expectations with regard thereto or any change in events, conditions, or circumstances on which any such statement is based. You should, however, review additional disclosures we make in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K filed with the SEC.

You should read this prospectus supplement, the accompanying prospectus, and the documents that we incorporated by reference herein and therein completely and with the understanding that our actual future results, levels of activity, and performance as well as other events and circumstances may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

USE OF PROCEEDS

We do not know whether any Warrants will be exercised, or if any Warrants are exercised, when they will be exercised. It is possible that the Warrants may expire and never be exercised. Also, as discussed in “Description of Securities”, there are certain circumstances under which holders of Warrants have the right to cashless exercise. As a result of the foregoing, even if the Warrants are exercised, we may not receive any proceeds, or the proceeds that we do receive may be significantly less than what we currently expect. We estimate that maximum net proceeds that we may receive from the exercise of the Warrants, assuming all of the Warrants are exercised at the current exercise price of \$15.17 per share of common stock, will be approximately \$2.2 million, before deducting estimated offering expenses payable by us.

We intend to use any net proceeds from this offering for general corporate purposes, including working capital, research and development, and capital expenditures.

The amounts and timing of our actual use of the net proceeds will vary depending on a number of factors. As a result, our management will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the net proceeds of this offering.

DILUTION

Net tangible book value on March 31, 2021, was approximately \$39.9 million, or \$0.89 per share. “Net tangible book value” is total assets minus the sum of liabilities and intangible assets. “Net tangible book value per share” is net tangible book value divided by the total number of shares outstanding.

After giving effect to the sale of 142,711 shares our common stock representing exercise of all Warrants in full at an assumed offering price of \$15.17 per share, the current exercise price of the warrants per share of common stock, and after deducting estimated aggregate offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2021 would have been approximately \$42.0 million, or \$0.94 per share. This represents an immediate increase in net tangible book value of \$0.05 per share to existing stockholders and immediate dilution in net tangible book value of \$14.23 per share to new investors purchasing our common stock in this offering. The following table illustrates this dilution on a per share basis:

Current exercise price of Warrants		\$15.17
Net tangible book value per share as of March 31, 2021	\$0.89	
Increase in net tangible book value per share attributable exercise of all Warrants in full	<u>\$0.05</u>	
As adjusted net tangible book value per share after giving effect to this offering		<u>\$0.94</u>
Dilution per share to persons exercising Warrants		<u>\$14.23</u>

Unless otherwise indicated, the number of shares of common stock to be outstanding immediately after this offering is based on 44,772,606 shares outstanding as of May 26, 2021 and excludes as of such date:

- 1,603,972 shares of common stock issuable upon the exercise of outstanding stock options as of January 2, 2020, with a weighted average exercise price of \$2.75 per share;
- 1,020,690 shares of common stock reserved for future issuance under our 2015 Equity Incentive Plan (the “2015 Plan”) as of March 31, 2021;
- 178,599 shares of common stock reserved for future issuance under our 2015 Employee Stock Purchase Plan (the “ESPP”) (as well as any future increases in the number of shares of common stock reserved for future issuance pursuant to the evergreen provision of the ESPP);
- 42,928 shares of common stock issuable upon exercise of a warrant issued to Wedbush Securities Inc. (“Wedbrush”), with an exercise price of \$18.90 per share;
- 6,188 shares of common stock to be issued pursuant to a professional relations and consulting agreement dated December 9, 2019;
- 3,783,522 shares of common stock issuable upon the exercise of warrants issued in connection with our public offering completed on February 11, 2020 (the “February Offering”), with an exercise price of \$1.15 per share; and
- 3,964,065 shares of common stock issuable upon the exercise of warrants issued in a private placement to certain holders of warrants issued in the February Offering in connection with such holders agreeing to exercise their warrants from the February Offering in exchange for the Company agreeing to lower the exercise price of such warrants, completed on December 11, 2020 (the “Inducement Warrants”), with an exercise price of \$1.182 per share.

To the extent that outstanding options have been or may be exercised or other shares issued, investors in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

DESCRIPTION OF SECURITIES

The following is a description of the securities we are offering. The following description does not purport to be complete and is subject to, and qualified in its entirety by, our amended and restated certificate of incorporation, which is referred to in this section as the certificate of incorporation, and our amended and restated bylaws, as may be amended, which is referred to in this section as the bylaws. The terms of our common stock and preferred stock may also be affected by Delaware law.

Common Stock

The material terms and provisions of our common stock and each other class of our securities which qualifies or limits our common stock are described under the caption “Description of Capital Stock” in the attached prospectus.

Warrants

The following summary of certain terms and provisions of the Warrants is not complete and is subject to, and qualified in its entirety by the provisions of the Warrant, the form of which hasn’t been filed yet. Prospective investors should carefully review the terms and provisions of the form of Warrant for a complete description of the terms and conditions of the Warrants.

Duration and Exercise Price. The Warrants, when issued, entitled the holders thereof to purchase up to an aggregate of 142,711 shares of our common stock at an exercise price per share of \$15.17, and will expire on January 20, 2025.

Exercisability. The Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below).

Cashless Exercise. In lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Warrant. At our discretion, the Warrants may be deemed exercised on a cashless basis upon the closing of an issuance and sale of our common stock in an equity financing with gross proceeds of at least \$10,000,000.

Transferability. Subject to applicable laws, Warrants may be transferred at the option of the holder upon surrender of the Warrants to us together with the appropriate instruments of transfer.

Fundamental Transactions. In the event of any fundamental transaction, as described in the Warrants and generally including any merger with or into another entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our common stock, then upon any subsequent exercise of a Warrant, the holder will have the right to receive as alternative consideration, for each share of our common stock that would have been issuable upon such exercise immediately prior to the occurrence of such fundamental transaction, the number of shares of common stock of the successor or acquiring corporation or of our company, if it is the surviving corporation, and any additional consideration receivable upon or as a result of such transaction by a holder of the number of shares of our common stock for which the Warrant is exercisable immediately prior to such event.

Right as a Stockholder. Except as otherwise provided in the Warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the Warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their Warrants.

Amendments. Subject to certain exceptions, any term of the Warrants may be amended with our written consent and the written consent of the holder thereof.

DESCRIPTION OF SECURITIES

The following is a description of the securities we are offering. The following description does not purport to be complete and is subject to, and qualified in its entirety by, our amended and restated certificate of incorporation, which is referred to in this section as the certificate of incorporation, and our amended and restated bylaws, as may be amended, which is referred to in this section as the bylaws. The terms of our common stock and preferred stock may also be affected by Delaware law.

Authorized Capital Stock

Our authorized capital stock consists of 100,000,000 shares of common stock, \$0.0001 par value per share, and 10,000,000 shares of preferred stock, \$0.0001 par value per share. As of December 31, 2020, Salarius had 23,808,546 shares of common stock outstanding and no shares of preferred stock outstanding.

Common Stock

Holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders. The holders of our common stock do not have any cumulative voting rights. Holders of our common stock are entitled to receive ratably any dividends declared by our board of directors out of funds legally available for that purpose, subject to any preferential dividend rights of any outstanding preferred stock. Our common stock has no preemptive rights, conversion rights, or other subscription rights or redemption or sinking fund provisions. In the event of a liquidation, dissolution, or winding up of Salarius, holders of our common stock will be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock.

Warrants

The following summary of certain terms and provisions of the Warrants is not complete and is subject to, and qualified in its entirety by the provisions of the Warrant, the form of which hasn't been filed yet. Prospective investors should carefully review the terms and provisions of the form of Warrant for a complete description of the terms and conditions of the Warrants.

Duration and Exercise Price. Each Warrant, when issued, entitles the holder thereof to purchase 0.008 shares of our common stock at an exercise price of \$0.1198. In the aggregate, the Warrants, when issued, entitles the holders thereof to purchase up to 142,711 shares of our common stock at an exercise price per share of \$15.17. The Warrants will expire on January 20, 2025.

Exercisability. The Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below).

Cashless Exercise. In lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Warrant. At our discretion, the Warrants may be deemed exercised on a cashless basis upon the closing of an issuance and sale of our common stock in an equity financing with gross proceeds of at least \$10,000,000.

Transferability. Subject to applicable laws, Warrants may be transferred at the option of the holder upon surrender of the Warrants to us together with the appropriate instruments of transfer.

Fundamental Transactions. In the event of any fundamental transaction, as described in the Warrants and generally including any merger with or into another entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our common stock, then upon any subsequent exercise of a Warrant, the holder will have the right to receive as alternative consideration, for each share of our common stock that would have been issuable upon such exercise immediately prior to the occurrence of such fundamental transaction, the number of shares of common stock of the successor or acquiring corporation or of our company, if it is the surviving corporation, and any additional consideration receivable upon or as a result of such transaction by a holder of the number of shares of our common stock for which the Warrant is exercisable immediately prior to such event.

Right as a Stockholder. Except as otherwise provided in the Warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the Warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their Warrants.

Amendments. Subject to certain exceptions, any term of the Warrants may be amended with our written consent and the written consent of the holder thereof.

Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

Certain provisions of the DGCL and of our amended and restated certificate of incorporation and amended and restated bylaws could have the effect of delaying, deferring, or discouraging another party from acquiring control of Salaris. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids and, as a consequence, they might also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions are also designed in part to encourage anyone seeking to acquire control of Salaris to first negotiate with our board of directors. These provisions might also have the effect of preventing changes in the management of Salaris. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests. However, Salaris believes that the advantages gained by protecting its ability to negotiate with any unsolicited and potentially unfriendly acquirer outweigh the disadvantages of discouraging such proposals, including those priced above the then-current market value of our common stock, because, among other reasons, the negotiation of such proposals could improve their terms.

Board Composition and Filling Vacancies

Our amended and restated certificate of incorporation provides for the division of our board of directors into three classes serving staggered three-year terms, with one class being elected each year. Our amended and restated certificate of incorporation also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of 66.67% of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of directors then in office even if less than a quorum. The classification of directors, together with the limitations on removal of directors and treatment of vacancies, has the effect of making it more difficult for stockholders to change the composition of our board of directors.

No Written Consent of Stockholders

Our amended and restated certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting. This limit may lengthen the amount of time required to take stockholder

actions and would prevent the amendment of the bylaws or removal of directors by our stockholders without holding a meeting of stockholders.

Meetings of Stockholders

Our amended and restated certificate of incorporation and amended and restated bylaws provide that special meetings of stockholders may be called at the request of the Chairman of the Board or the Chief Executive Officer or by a majority of the members of our board of directors then in office, and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our amended and restated bylaws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance Notice Requirements

Our amended and restated bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days or more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. Our amended and restated bylaws specify the requirements as to form and content of all stockholders' notices. These requirements may preclude stockholders from bringing matters before the stockholders at an annual or special meeting.

Amendment to Certificate of Incorporation and Bylaws

We may amend our certificate of incorporation in the manner presently or hereafter prescribed by statute, except as provided as follows, and all rights conferred to the stockholders are subject to the following reservation. In addition to any affirmative vote of the holders of any particular class or series of our capital stock required by law or by the amended and restated certificate of incorporation or any certificate of designation filed with respect to a series of preferred stock, the affirmative vote of the holders of at least 66.67% of the voting power of all of the then outstanding shares of capital stock entitled to vote generally in the election of directors is required to amend provisions relating to the management of the business, board of directors, director liability, indemnification and forum selection. Our bylaws may be amended by the affirmative vote of a majority of the authorized directors then in office, subject to the laws of the State of Delaware, and may also be amended by the affirmative vote of at least 66.67% of the outstanding shares entitled to vote generally in the election of directors, voting together as a single class, on the amendment.

Choice of Forum

Our amended and restated certificate of incorporation and amended and restated bylaws provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the exclusive forum for (A) any derivative action or proceeding brought on behalf of the Company; (B) any action asserting a claim of breach of a fiduciary duty owed by any director, officer, or other employee of Salarius to Salarius or our stockholders; (C) any action asserting a claim against Salarius arising pursuant to any provision of the DGCL, or our amended and restated certificate of incorporation or amended and restated bylaws; or (D) any action asserting a claim against Salarius governed by the internal affairs doctrine. Nothing in our amended and restated certificate of incorporation or amended and restated bylaws preclude stockholders that assert claims to enforce a liability or duty created under the Securities Act or Exchange Act of 1934, as amended ("Exchange Act") from bringing such claims in state or federal court, subject to applicable law. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and to have consented to these provisions in our amended and restated certificate of incorporation.

Delaware Anti-Takeover Law

We are subject to the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced. For purposes of determining the voting stock outstanding, shares owned by (i) persons who are directors and also officers, and (ii) in some instances, employee stock plans are excluded; however, for purposes of determination, the outstanding voting stock owned by the interested stockholder shall not be excluded; or
- at or after the time the stockholder became interested, the business combination was approved by our board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, lease, pledge, or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges, or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

PLAN OF DISTRIBUTION

On or about July 2, 2021, we will distribute to each holder of a Right, Warrants, together with copies of this prospectus supplement and the prospectus. The Warrants will thereafter become exercisable pursuant to their terms. If you wish to exercise your Warrants, you must timely comply with the exercise procedures described above. See “Description of Securities—Exercisability.” We will deliver shares of our common stock upon exercise of a Warrant, in whole or in part. We will not issue fractional shares.

LEGAL MATTERS

The validity of the shares of common stock and warrants being offered hereby will be passed upon for us by Hogan Lovells US LLP, Houston Texas.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Reports on Form 10-K for the year ended December 31, 2020 and 2019, as set forth in their report, which is incorporated by reference in this prospectus supplement and elsewhere in the registration statement. Our consolidated financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

The financial statements of Salarius Pharmaceuticals, LLC, a Delaware limited liability company and a wholly owned subsidiary of Salarius Pharmaceuticals, Inc. as of and for the year December 31, 2018 have been audited by Weaver and Tidwell, L.L.P., independent registered public accounting firm, as stated in their report dated March 25, 2019, except for the effects of the recast of equity to which the date is January 10, 2020 with respect to the audit of the balance sheet of Salarius Pharmaceuticals, LLC as of December 31, 2018 and the related statements of operations, changes in stockholders' deficit and cash flows for the year ended December 31, 2018, which report appears in the December 31, 2019 annual report on Form 10-K of Salarius Pharmaceuticals, Inc. and is incorporated by reference in this prospectus supplement and the accompanying prospectus. Such financial statements are incorporated by reference in reliance upon the reports of Weaver and Tidwell, L.L.P., and upon the authority of such firm as experts in accounting and auditing.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We file annual, quarterly, and current reports, proxy statements, and other information with the SEC. The SEC maintains a web site that contains reports, proxy, and information statements and other information regarding companies, such as ours, that file documents electronically with the SEC. The address of that site on the world wide web is <http://www.sec.gov>. The information on the SEC's web site is not part of this prospectus, and any references to this web site or any other web site are inactive textual references only.

The SEC permits us to "incorporate by reference" the information contained in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents rather than by including them in this prospectus. Information that is incorporated by reference is considered to be part of this prospectus and you should read it with the same care that you read this prospectus. Later information that we file with the SEC will automatically update and supersede the information that is either contained, or incorporated by reference, in this prospectus, and will be considered to be a part of this prospectus from the date those documents are filed. We have filed with the SEC, and incorporate by reference in this prospectus (excluding any portions thereof furnished by the Registrant, including but not limited to information furnished under Item 2.02 and Item 7.01 and any exhibits relating to Item 2.02 or Item 7.01 furnished under Item 9.01 of Form 8-K and any certification required by 18 U.S.C. § 1350):

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2020 (filed on March 18, 2021);
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 (filed May 12, 2021);
- our Current Reports on Form 8-K filed with the SEC on January 21, 2021, February 5, 2021, February 17, 2021, March 3, 2021, March 8, 2021, May 20, 2021, and June 16, 2021;
- the information contained in our definitive proxy statement on Schedule 14A filed on April 27, 2021 and incorporated by reference into Part III of our Annual Report on Form 10-K for the year ended December 31, 2020; and
- the description of our common stock contained in our Registration Statement on Form 8-A filed on January 23, 2015, including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference all additional documents that we file with the SEC under the terms of Section 13(a), 13(c), 14 or 15(d) of the Exchange Act that are made after the initial filing date of the registration statement of which this prospectus is a part and the effectiveness of the registration statement, as well as between the date of this prospectus and the termination of any offering of securities offered by this prospectus (excluding any portions thereof furnished by the Registrant, including but not limited to information furnished under Item 2.02 and Item 7.01 and any exhibits relating to Item 2.02 or Item 7.01 furnished under Item 9.01 of Form 8-K and any certification required by 18 U.S.C. § 1350).

Any statement contained in this Registration Statement or in a document incorporated by reference in this Registration Statement shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in this Registration Statement or in any subsequently filed document that is deemed to be incorporated by reference in this Registration Statement modifies or supersedes such statement.

You may request a copy of any or all of the documents incorporated by reference but not delivered with this prospectus, at no cost, by writing or telephoning us at the following address and number: 2450 Holcombe Blvd., Suite X, Houston, TX 77021, and our telephone number is (832) 834-6992. We will not, however, send exhibits to those documents, unless the exhibits are specifically incorporated by reference in those documents.

We make available free of charge on our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports, as soon as reasonably practicable after we electronically file or furnish such materials to the Securities and Exchange Commission, or SEC. You may obtain a free copy of these reports in the Investor Relations section of our website, www.salariuspharma.com.

FLEXPharma

\$100,000,000

**Common Stock
Preferred Stock
Debt Securities
Warrants**

From time to time, we may offer up to \$100,000,000 of any combination of the securities described in this prospectus in one or more offerings. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable antidilution provisions.

This prospectus provides a general description of the securities we may offer. Each time we offer securities, we will provide specific terms of the securities offered in a supplement to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

This prospectus may not be used to consummate a sale of any securities unless accompanied by a prospectus supplement.

Our common stock is listed on The Nasdaq Capital Market, or Nasdaq, under the symbol "FLKS." On April 22, 2019, the last reported sale price of our common stock was \$0.55 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on Nasdaq or any securities market or other exchange of the securities, if any, covered by the prospectus supplement.

We will sell these securities directly to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section titled "Plan of Distribution" in this prospectus. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts or over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

The aggregate market value of our outstanding common stock held by non-affiliates was approximately \$11.3 million which was calculated based on 18,043,229 shares of outstanding common stock held by non-affiliates as of April 1, 2019, and a price per share of \$0.624, the closing price of our common stock on April 15, 2019. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities pursuant to this registration statement with a value more than one-third of the aggregate market value of our common stock held by non-affiliates in any 12-month period, so long as the aggregate market value of our common stock held by non-affiliates is less than \$75.0 million. In the event that subsequent to the effective date of this registration statement, the aggregate market value of our outstanding common stock held by non-affiliates equals or exceeds \$75.0 million, then the one-third limitation on sales shall not apply to additional sales made pursuant to this registration statement. We have not sold any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to, and including, the date of this registration statement.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus as described on page 6 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 17, 2019.

Table of Contents	i
Executive Summary	1
Key Factors	6
Disclaimer Note Regarding Forward-Looking Statements	7
Use of Proceeds	9
Description of Capital Stock	10
Description of Debt Securities	15
Description of Warrants	21
Ownership of Securities	23
Method of Distribution	26
Other Matters	28
Where You Can Find More Information	29
Incorporation of Certain Information by Reference	30

ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a “shelf” registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total aggregate offering price of \$100,000,000. This prospectus provides you with a general description of the securities we may offer.

Each time we sell securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading “Incorporation of Certain Information by Reference,” before investing in any of the securities offered.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

Neither we, nor any agent, underwriter or dealer has authorized any person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any related free writing prospectus prepared by or on behalf of us or to which we have referred you. This prospectus, any applicable supplement to this prospectus or any related free writing prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus, any applicable supplement to this prospectus or any related free writing prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should not assume that the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any applicable prospectus supplement or any related free writing prospectus is delivered, or securities are sold, on a later date.

This prospectus and the information incorporated herein by reference contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading “Where You Can Find More Information.”

PROSPECTUS SUMMARY

The following summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our consolidated financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Unless the context indicates otherwise, references in this prospectus to “Flex,” “Flex Pharma,” “the Company,” “we,” “us,” “our” and similar references refer to Flex Pharma, Inc. and its wholly owned subsidiaries.

Company Overview

We are a biotechnology company that was previously focused on developing innovative and proprietary treatments for muscle cramps, spasms and spasticity associated with severe neurological conditions. In June 2018, we announced that we were ending our ongoing Phase 2 clinical trials of our lead drug product candidate, FLX-787, in patients with motor neuron disease, or MND, primarily with amyotrophic lateral sclerosis, or ALS, and in patients with Charcot-Marie-Tooth disease, or CMT, due to oral tolerability concerns observed in both studies. The wind-down of the activities associated with these studies was completed in the third quarter of 2018.

In 2016, we launched our consumer product, HOTSHOT[®], to prevent and treat exercise-associated muscle cramps, or EAMCs. We continue to market and sell HOTSHOT to endurance athletes who drink it before, during and after exercise to prevent and treat exercise associated muscle cramps, or EAMCs.

In June 2018, we initiated a process to explore a range of strategic alternatives for enhancing stockholder value, including the potential sale or merger of the Company. Wedbush PacGrow was engaged to act as our strategic financial advisor at that time. We also announced the restructuring of the organization to reduce our cost structure. In connection with the restructuring plan, we reduced our workforce by approximately 60%, with the reduction completed as of September 30, 2018.

Following an extensive process of evaluating strategic alternatives and identifying and reviewing potential candidates for a strategic acquisition or other transaction, on January 3, 2019, we entered into a merger agreement with Salaris Pharmaceuticals, LLC, or Salaris, under which the privately held Salaris will merge with a wholly owned subsidiary of Flex Pharma. If the merger is completed, the business of Salaris will continue as the business of the combined organization.

We expect to devote significant time and resources to completion of this merger. However, there can be no assurance that such activities will result in the completion of the merger. Further, the completion of the merger may ultimately not deliver the anticipated benefits or enhance shareholder value.

If the merger is not completed, we will reconsider our strategic alternatives. In this case, we consider one of the following courses of action to be the most likely alternatives:

- *Dissolve and liquidate our assets.* If, for any reason, the merger does not close, our Board of Directors will most likely conclude that it is in the best interest of stockholders to dissolve the Company and liquidate its assets. In that event, we would be required to pay all of our debts and contractual obligations, and to set aside certain reserves for potential future claims. There would be no assurances as to the amount or timing of available cash remaining to distribute to stockholders after paying our obligations and setting aside funds for reserves.
- *Pursue another strategic transaction.* We may resume the process of evaluating a potential strategic transaction in order to attempt another strategic transaction like the merger.

- *Operate the consumer business.* Although less likely than the alternatives above, our Board of Directors may elect to continue to market and sell HOTSHOT and continue to operate our consumer business.

We cannot predict whether or to what extent we might resume previous level of research and development activities, including clinical trials, or what the related future cash needs would be for any such activities.

a. Historical Business and Programs

We focused our historical efforts on developing innovative and proprietary treatments for muscle cramps, spasms and spasticity associated with severe neurological conditions and exercise-associated muscle cramps.

Muscle cramps and spasms are involuntary, often painful, contractions that can last several minutes and, in many instances, result in prolonged soreness. Muscle cramps and spasms are thought to result from hyperexcitable alpha-motor neurons. Spasticity is characterized by the combination of weakness and velocity-dependent resistance to stretch, in the same muscle. This reflex hyperexcitability may be due to lost inhibition in spinal cord circuits. FLX787, HOTSHOT and our other drug product candidates are based on a mechanism of action we describe as chemical neurostimulation. We believe chemical neurostimulation to be a process in which a molecule, such as FLX-787, acts topically on the surfaces of the mouth, throat, esophagus and stomach to produce a sensory signal by activating nerves in those tissues. That signal is thought to ultimately result in a beneficial effect. Specifically, our product candidates activate certain receptors known as transient receptor potential, or TRP, ion channels in primary sensory neurons producing a signal believed to inhibit neuronal circuits and thereby reduce hyperexcitability in the neurons that fire muscles. Reduced alpha-motor neuron hyperexcitability in spinal cord circuits is thought to suppress repetitive firing of alpha-motor neurons, thereby preventing or reducing muscle cramps and spasms, and potentially reducing reflex hyperexcitability and therefore spasticity.

At the time we decided to stop our two Phase 2 clinical trials in June 2018, we were developing FLX-787 for severe neurological conditions. We had recently completed a Phase 2 exploratory clinical trial in patients with Multiple Sclerosis, or MS, and were executing two Phase 2 clinical trials, one in MND and one in CMT.

One Phase 2 clinical trial in the United States, referred to as the COMMEND trial, was in patients with MND, primarily with ALS, who suffered from muscle cramps. FLX-787 was being developed for ALS under fast track designation which was granted by the Food and Drug Administration, or FDA, in July 2017. The other Phase 2 clinical trial in the United States, referred to as the COMMIT trial, was in patients with CMT who suffered from muscle cramps. We stopped these studies due to oral tolerability concerns observed in both studies. In the COMMEND study, 31% of patients randomized to receive the oral disintegrating tablet formulation at 30 mg, taken three times a day, discontinued before the end of the 4-week treatment period due to oral adverse events. A similar proportion of subjects in the COMMIT study discontinued due to oral adverse events, after being randomized to the 30 mg dose. No patients randomized to the 0.5 mg low-dose control discontinued due to oral adverse events in either study. The wind-down of the activities associated with these studies was completed in the third quarter of 2018.

In addition to developing FLX-787, we also developed and launched our HOTSHOT consumer beverage in 2016. HOTSHOT is our consumer beverage containing a proprietary formulation of TRP activators. The majority of HOTSHOT sales are generated through our branded website and third-party websites. We also sell HOTSHOT to select specialty retailers in geographic areas with strong endurance sports markets and directly to athletic teams at the amateur and professional levels.

In January 22, 2018, we disclosed that we engaged an investment banking firm to assist with the consideration of strategic alternatives for our consumer business segment. In connection with the restructuring plan announced in June 2018, we elected to reduce the expenses associated with our consumer business segment while we assessed strategic alternatives for the Company and this segment.

b. Company Information

We were incorporated in Delaware on February 26, 2014. Our principal executive offices are located at 31 St. James Avenue, 6th Floor, Boston, Massachusetts 02116 and our telephone number is (617) 874-1821. Our corporate website address is www.flex-pharma.com. The information contained on our website is not a part of this prospectus, and the inclusion of our website address in the prospectus is an inactive textual reference only.

We are an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012, or JOBS Act. We will cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of \$1.0 billion or more; (ii) December 31, 2020; (iii) the date on which we have issued more than \$1.0 billion in non-convertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

The Securities We May Offer

We may offer shares of our common stock and preferred stock, various series of debt securities and warrants to purchase any of such securities, up to a total aggregate offering price of \$100,000,000 from time to time in one or more offerings under this prospectus, together with any applicable prospectus supplement and any related free writing prospectus, at prices and on terms to be determined by market conditions at the time of the relevant offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity;
- original issue discount;
- rates and times of payment of interest or dividends;
- redemption, conversion, exchange or sinking fund terms;
- ranking;
- restrictive covenants;
- voting or other rights;
- conversion or exchange prices or rates and any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange; and
- important U.S. federal income tax considerations.

The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

We may sell the securities directly to investors or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities through underwriters or agents, we will include in the applicable prospectus supplement:

- · the names of those underwriters or agents;
- · applicable fees, discounts and commissions to be paid to them;
- · details regarding over-allotment options, if any; and
- · the estimated net proceeds to us.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

Common Stock. We may issue shares of our common stock from time to time. Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders and does not have cumulative voting rights. Subject to preferences that may apply to any outstanding preferred stock, holders of our common stock are entitled to receive ratably any dividends that our board of directors may declare out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any outstanding preferred stock. Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future. In this prospectus, we have summarized certain general features of our common stock under the heading “Description of Capital Stock-Common Stock.” We urge you, however, to read the applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) related to any common stock being offered.

Preferred Stock. We may issue shares of our preferred stock from time to time, in one or more series. Under our certificate of incorporation, our board of directors has the authority, without further action by our stockholders (unless such stockholder action is required by applicable law or the rules of any stock exchange or market on which our securities are then traded), to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the number, rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences and sinking fund terms, and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. Any convertible preferred stock we may issue will be convertible into our common stock or exchangeable for our other securities. Conversion may be mandatory or at the holder’s option and would be at prescribed conversion rates.

If we sell any series of preferred stock under this prospectus, we will fix the designations, voting powers, preferences and rights of such series of preferred stock, as well as the qualifications, limitations or restrictions thereof, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock that we are offering before the issuance of the related series of preferred stock. In this prospectus, we have summarized certain general features of the preferred stock under the heading “Description of Capital Stock-Preferred Stock.” We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

Debt Securities. From time to time, we may issue debt securities in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsecured and unsubordinated debt. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all of our senior indebtedness. Convertible debt securities will be convertible into or exchangeable for our common stock or other securities. Conversion may be mandatory or at the holder’s option and would be at prescribed conversion rates.

Any debt securities issued under this prospectus will be issued under one or more documents called indentures, which are contracts between us and a national banking association or other eligible party, as trustee. In this prospectus, we have summarized certain general features of the debt securities under the heading “Description of Debt Securities.” We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of debt securities being offered, as well as the complete indenture(s) and any supplemental indentures that contain the terms of the debt securities. We have filed a form of indenture as an exhibit to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will be incorporated by reference from reports that we file with the SEC, supplemental indentures and forms of debt securities containing the terms of the debt securities being offered.

Warrants. We may issue warrants for the purchase of common stock, preferred stock or debt securities, in one or more series, from time to time. We may issue warrants independently or in combination with common stock, preferred stock or debt securities. In this prospectus, we have summarized certain general features of the warrants under the heading “Description of Warrants.” We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the particular series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants. We have filed forms of the warrant agreements and forms of warrant certificates containing the terms of the warrants that we may offer as exhibits to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will be incorporated by reference from reports that we file with the SEC, the form of warrant or the warrant agreement and warrant certificate, as applicable, that contain the terms of the particular series of warrants we are offering, and any supplemental agreements, before the issuance of such warrants.

Any warrants issued under this prospectus may be evidenced by warrant certificates. Warrants may be issued under a warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if applicable, in the prospectus supplement relating to the particular series of warrants being offered.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully review the risks and uncertainties described under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in our Annual Report on Form 10-K for the year ended December 31, 2018, as updated by our subsequent filings, which are incorporated by reference into this prospectus, before deciding whether to purchase any of the securities being registered pursuant to the registration statement of which this prospectus is a part. Each of the risk factors could adversely affect our business, results of operations, financial condition and cash flows, as well as adversely affect the value of an investment in our securities, and the occurrence of any of these risks might cause you to lose all or part of your investment. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference contain forward-looking statements. These are based on our management's current beliefs, expectations and assumptions about future events, conditions and results and on information currently available to us. Discussions containing these forward-looking statements may be found, among other places, in the sections titled "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference from our most recent Annual Report on Form 10-K, as well as any amendments thereto, filed with the SEC.

Any statements in this prospectus, or incorporated herein, about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and are forward-looking statements. Within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, these forward-looking statements include statements regarding:

- the timing and anticipated completion of the merger with Salarius Pharmaceuticals, LLC;
- the expected benefits and growth potential of HOTSHOT;
- our ability to obtain funding for our operations if the merger is not completed;
- our ability to expand the sales of our consumer product;
- the size and growth potential of the markets for our consumer product and our drug product candidates, and our ability to serve those markets;
- the rate and degree of market acceptance of our consumer product;
- the performance of our third-party suppliers and manufacturers;
- the success of competing therapies that are, or become, available;
- our plans to resume development of our drug product candidates;
- the loss of key scientific or management personnel;
- our expectations regarding the period during which we qualify as an emerging growth company under the Jumpstart Our Business Startups Act;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements and needs for additional financing; and
- our expectations regarding our ability to obtain and adequately maintain sufficient intellectual property protection for our consumer product and drug product candidates.

In some cases, you can identify forward-looking statements by terminology such as "anticipate," "believe," "could," "estimate," "expects," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "would" or the negative or plural of those terms, and similar expressions intended to identify statements about the future, although not all forward-looking statements contain these words. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements.

You should refer to the "Risk Factors" section contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus, for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. Given these risks, uncertainties and other factors, many of which are beyond our control, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate, and you should not place undue reliance on these forward-looking statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to revise any forward-looking statements to reflect events or developments occurring after the date of this prospectus, even if new information becomes available in the future.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of the securities offered hereby. Except as described in any applicable prospectus supplement or in any free writing prospectuses that we may authorize to be provided to you in connection with a specific offering, we currently intend to use the net proceeds from the sale of the securities offered hereby, if any, for working capital and general corporate purposes. We will set forth in the applicable prospectus supplement or free writing prospectus our intended use for the net proceeds received from the sale of any securities sold pursuant to the prospectus supplement or free writing prospectus. Pending the use of net proceeds, we intend to invest the net proceeds in short-term, investment-grade, interest-bearing obligations, certificates of deposit or direct or guaranteed obligations of the United States.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and provisions of our amended and restated certificate of incorporation and amended and restated bylaws are summaries. You should also refer to the amended and restated certificate of incorporation and the amended and restated bylaws, which are filed as exhibits to the registration statement of which this prospectus is part.

a. General

Under our amended and restated certificate of incorporation we are authorized to issue up to 100,000,000 shares of common stock, par value \$0.0001 per share, and 10,000,000 shares of preferred stock, par value \$0.0001 per share, all of which shares of preferred stock are undesignated. Our board of directors may establish the rights and preferences of the preferred stock from time to time. As of April 15, 2019, we had outstanding 18,069,476 shares of common stock.

b. Common Stock

i. Voting Rights

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders. The affirmative vote of holders of at least 66 2/3% of the voting power of all of the then-outstanding shares of capital stock, voting as a single class, will be required to amend certain provisions of our amended and restated certificate of incorporation, including provisions relating to amending our amended and restated bylaws, the classified board, the size of our board, removal of directors, director liability, vacancies on our board, special meetings, stockholder notices, actions by written consent and exclusive jurisdiction.

ii. Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

iii. Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

v. Rights and Preferences

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future.

v. Preferred Stock

Pursuant to our amended and restated certificate of incorporation, our board of directors has the authority, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the number, rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences and sinking fund terms, and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control or other corporate action, or make the removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of the common stock.

Our board of directors will fix the designations, voting powers, preferences and rights of each series, as well as the qualifications, limitations or restrictions thereof, of the preferred stock of each series that we offer under this prospectus and applicable prospectus supplements in the certificate of designation relating to that series. We will

file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. This description will include:

- the title and stated value;
- the number of shares we are offering;
- the liquidation preference per share;
- the purchase price per share;
- the dividend rate per share, dividend period and payment dates and method of calculation for dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- our right, if any, to defer payment of dividends and the maximum length of any such deferral period;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock or other securities of ours, including depositary shares and warrants, and, if applicable, the conversion period, the conversion price, or how it will be calculated, and under what circumstances it may be adjusted;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange period, the exchange price, or how it will be calculated, and under what circumstances it may be adjusted;
- voting rights, if any, of the preferred stock;
- preemption rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- whether interests in the preferred stock will be represented by depositary shares;
- a discussion of any material or special U.S. federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;
- 11
- any limitations on issuances of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock being issued as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and
- any other specific terms, rights, preferences, privileges, qualifications or restrictions of the preferred stock.

The Delaware General Corporation Law, or DGCL, which is the law of the state of our incorporation, provides that the holders of preferred stock will have the right to vote separately as a class (or, in some cases, as a series) on an amendment to our certificate of incorporation if the amendment would change the par value, the powers, preferences or special rights of the class or series so as to adversely affect the class or series, as the case may be, or, unless the certificate of incorporation provided otherwise, the number of authorized shares of the class. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

c. Anti-Takeover Provisions

i. Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the DGCL, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a “business combination” to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the entity or person’s affiliates and associates, beneficially owns, or is an affiliate or associate of the corporation and within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

ii. Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Among other things, our amended and restated certificate of incorporation and amended and restated bylaws will:

- permit our board of directors to issue up to 10,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change in control;
- provide that the authorized number of directors may be changed only by resolution of our board of directors;
- provide that our board of directors will be classified into three classes of directors;
- provide that, subject to the rights of any series of preferred stock to elect directors, directors may only be removed for cause, which removal may be effected, subject to any limitation imposed by law, by the holders of at least a majority of the voting power of all of our then-outstanding shares of the capital stock entitled to vote generally at an election of directors;

- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent or electronic transmission;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder's notice;
- provide that special meetings of our stockholders may be called only by the chairman of our board of directors, our chief executive officer or president or by our board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors; and
- not provide for cumulative voting rights, therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose.
- The amendment of any of these provisions would require approval by the holders of at least 66 2/3 % of the voting power of all of our then-outstanding common stock entitled to vote generally in the election of directors, voting together as a single class.

The combination of these provisions will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Because our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our company, outweigh the disadvantages of discouraging takeover proposals, because negotiation of takeover proposals could result in an improvement of their terms.

i.Choice of Forum

Our amended and restated certificate of incorporation will provide that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall (or, if and only if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if and only if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware), the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employee of the Company to us or our stockholders; (3) any action asserting a claim against us arising pursuant to any provision of the DGCL, the Amended and Restated Certificate of Incorporation or the Bylaws of the Company; or (4) any action asserting a claim against us governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the Company shall be deemed to have notice of and to have consented to these provisions.

d. Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent's address is P.O. Box 43078, Providence, Rhode Island 02940. The transfer agent for any series of preferred stock that we may offer under this prospectus will be named and described in the prospectus supplement for that series.

e. Listing on The Nasdaq Capital Market

Our common stock is listed on Nasdaq under the symbol “FLKS.”

DESCRIPTION OF DEBT SECURITIES

We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any debt securities that we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities offered under a prospectus supplement may differ from the terms described below. Unless the context requires otherwise, whenever we refer to the indenture, we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue the debt securities under the indenture that we will enter into with the trustee named in the indenture. The indenture will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We have filed the form of indenture as an exhibit to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will be incorporated by reference from reports that we file with the SEC, supplemental indentures and forms of debt securities containing the terms of the debt securities being offered.

The following summary of material provisions of the debt securities and the indenture is subject to, and qualified in its entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

a. General

The indenture does not limit the amount of debt securities that we may issue. It provides that we may issue debt securities up to the principal amount that we may authorize and may be in any currency or currency unit that we may designate. Except for the limitations on consolidation, merger and sale of all or substantially all of our assets contained in the indenture, the terms of the indenture do not contain any covenants or other provisions designed to give holders of any debt securities protection against changes in our operations, financial condition or transactions involving us.

We may issue the debt securities issued under the indenture as “discount securities,” which means they may be sold at a discount below their stated principal amount. These debt securities, as well as other debt securities that are not issued at a discount, may be issued with “original issue discount,” or OID, for U.S. federal income tax purposes because of interest payment and other characteristics or terms of the debt securities. Material U.S. federal income tax considerations applicable to debt securities issued with OID will be described in more detail in any applicable prospectus supplement.

We will describe in the applicable prospectus supplement the terms of the series of debt securities being offered, including:

- the title of the series of debt securities;
- any limit upon the aggregate principal amount that may be issued;
- the maturity date or dates;
- the form of the debt securities of the series;
- the applicability of any guarantees;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- whether the debt securities rank as senior debt, senior subordinated debt, subordinated debt or any combination thereof, and the terms of any subordination;
- if the price (expressed as a percentage of the aggregate principal amount thereof) at which such debt securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or if applicable, the portion of the principal amount of such debt securities that is convertible into another security or the method by which any such portion shall be determined;

- the interest rate or rates, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- if applicable, the date or dates after which, or the period or periods during which, and the price or prices at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date or dates, if any, on which, and the price or prices at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- any and all terms, if applicable, relating to any auction or remarketing of the debt securities of that series and any security for our obligations with respect to such debt securities and any other terms which may be advisable in connection with the marketing of debt securities of that series;
- whether the debt securities of the series shall be issued in whole or in part in the form of a global security or securities; the terms and conditions, if any, upon which such global security or securities may be exchanged in whole or in part for other individual securities; and the depositary for such global security or securities;
- if applicable, the provisions relating to conversion or exchange of any debt securities of the series and the terms and conditions upon which such debt securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at our option or the holders' option) conversion or exchange features, the applicable conversion or exchange period and the manner of settlement for any conversion or exchange;
- if other than the full principal amount thereof, the portion of the principal amount of debt securities of the series which shall be payable upon declaration of acceleration of the maturity thereof;
- additions to or changes in the covenants applicable to the particular debt securities being issued, including, among others, the consolidation, merger or sale covenant;
- additions to or changes in the events of default with respect to the securities and any change in the right of the trustee or the holders to declare the principal, premium, if any, and interest, if any, with respect to such securities to be due and payable;
- additions to or changes in or deletions of the provisions relating to covenant defeasance and legal defeasance;
- additions to or changes in the provisions relating to satisfaction and discharge of the indenture;
- additions to or changes in the provisions relating to the modification of the indenture both with and without the consent of holders of debt securities issued under the indenture;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars;
- whether interest will be payable in cash or additional debt securities at our or the holders' option and the terms and conditions upon which the election may be made;
- the terms and conditions, if any, upon which we will pay amounts in addition to the stated interest, premium, if any and principal amounts of the debt securities of the series to any holder that is not a "United States person" for federal tax purposes;
- any restrictions on transfer, sale or assignment of the debt securities of the series; and

- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, any other additions or changes in the provisions of the indenture, and any terms that may be required by us or advisable under applicable laws or regulations.

b. Conversion or Exchange Rights

We will set forth in the applicable prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for our common stock or our other securities. We will include provisions as to settlement upon conversion or exchange and whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock or our other securities that the holders of the series of debt securities receive would be subject to adjustment.

c. Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the indenture will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of our assets as an entirety or substantially as an entirety. However, any successor to or acquirer of such assets (other than a subsidiary of ours) must assume all of our obligations under the indenture or the debt securities, as appropriate.

d. Events of Default under the Indenture

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indenture with respect to any series of debt securities that we may issue:

- if we fail to pay any installment of interest on any series of debt securities, as and when the same shall become due and payable, and such default continues for a period of 90 days; provided, however, that a valid extension of an interest payment period by us in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of interest for this purpose;
- if we fail to pay the principal of, or premium, if any, on any series of debt securities as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to such series; provided, however, that a valid extension of the maturity of such debt securities in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of principal or premium, if any;
- if we fail to observe or perform any other covenant or agreement contained in the debt securities or the indenture, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive written notice of such failure, requiring the same to be remedied and stating that such is a notice of default thereunder, from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal of, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indenture, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series

will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will have the right to institute a proceeding under the indenture or to appoint a receiver or trustee, or to seek other remedies only if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request,
- such holders have offered to the trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred by the trustee in compliance with the request; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indenture.

e. Modification of Indenture; Waiver

We and the trustee may change an indenture without the consent of any holders with respect to specific matters:

- to cure any ambiguity, defect or inconsistency in the indenture or in the debt securities of any series;
- to comply with the provisions described above under “Description of Debt Securities-Consolidation, Merger or Sale;”
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to add to our covenants, restrictions, conditions or provisions such new covenants, restrictions, conditions or provisions for the benefit of the holders of all or any series of debt securities, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred upon us in the indenture;
- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;
- to make any change that does not adversely affect the interests of any holder of debt securities of any series in any material respect;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided above under “Description of Debt Securities-General” to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment under any indenture by a successor trustee; or

- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act.

In addition, under the indenture, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- extending the fixed maturity of any debt securities of any series;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any series of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

f. Discharge

Each indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- provide for payment;
- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- pay principal of and premium and interest on any debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;
- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series on the dates payments are due.

g. Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we provide otherwise in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indenture provides that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company, or DTC, or another depository named by us and identified in the applicable prospectus supplement with respect to that series. To the extent the debt securities of a series are issued in global form and as book-entry, a description of terms relating to any book-entry securities will be set forth in the applicable prospectus supplement.

At the option of the holder, subject to the terms of the indenture and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indenture and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will

impose no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

h. Information Concerning the Trustee

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indenture at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

i. Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

j. Governing Law

The indenture and the debt securities will be governed by and construed in accordance with the internal laws of the State of New York, except to the extent that the Trust Indenture Act of 1939 is applicable.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplement and in any related free writing prospectus that we may authorize to be distributed to you, summarizes the material terms and provisions of the warrants that we may offer under this prospectus, which may consist of warrants to purchase common stock, preferred stock or debt securities and may be issued in one or more series. Warrants may be offered independently or in combination with common stock, preferred stock or debt securities offered by any prospectus supplement. While the terms we have summarized below will apply generally to any warrants that we may offer under this prospectus, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The following description of warrants will apply to the warrants offered by this prospectus unless we provide otherwise in the applicable prospectus supplement. The applicable prospectus supplement for a particular series of warrants may specify different or additional terms.

We have filed forms of the warrant agreements and forms of warrant certificates listing the terms of the warrants that may be offered as exhibits to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant or the warrant agreement and warrant certificate, as applicable, that contain the terms of the particular series of warrants we are offering, as well as any supplemental agreements, before the issuance of such warrants. The following summaries of material terms and provisions of the warrants are subject to, and qualified in their entirety by reference to, all the provisions of the form of warrant or the warrant agreement and warrant certificate, as applicable, and any supplemental agreements applicable to a particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplement related to the particular series of warrants that we may offer under this prospectus, as well as any related free writing prospectus, and the complete form of warrant or the warrant agreement and warrant certificate, as applicable, and any supplemental agreements, that list the terms of the warrants.

a. General

In the applicable prospectus supplement, we will describe the terms of the series of warrants being offered, including, to the extent applicable:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable on exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased on such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable on the exercise of one warrant and the price at which these shares may be purchased on such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable on exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire; 22
- the manner in which the warrant agreements and warrants may be modified;
- a discussion of material or special U.S. federal income tax considerations of holding or exercising the warrants;
- the terms of the securities issuable on exercise of the warrants; and

- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable on such exercise, including:

- in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or payments on our liquidation, dissolution or winding up or to exercise voting rights, if any; or
- in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities purchasable on exercise or to enforce covenants in the applicable indenture.

b. Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. The warrants may be exercised as listed in the prospectus supplement relating to the warrants offered. Unless we otherwise specify in the applicable prospectus supplement, warrants may be exercised at any time up to the specified time on the expiration date that we list in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

On receipt of payment and the warrant or warrant certificate, as applicable, properly completed and duly executed at the corporate trust office of the warrant agent, if any, or any other office, including ours, indicated in the prospectus supplement, we will, as soon as practicable, issue and deliver the securities purchasable on such exercise. If less than all of the warrants (or the warrants represented by such warrant certificate) are exercised, a new warrant or a new warrant certificate, as applicable, will be issued for the remaining warrants.

c. Governing Law

Unless we provide otherwise in the applicable prospectus supplement, the warrants and warrant agreements will be governed by and construed in accordance with the laws of the State of New York.

d. Enforceability of Rights by Holders of Warrants

Each warrant agent, if any, will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand on us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable on exercise of, its warrants.

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee or depository maintain for this purpose as the “holders” of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as “indirect holders” of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

a. Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depository on behalf of other financial institutions that participate in the depository’s book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Global securities will be registered in the name of the depository or its participants. Consequently, for global securities, we will recognize only the depository as the holder of the securities, and we will make all payments on the securities to the depository. The depository passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depository and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a global security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depository’s book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not legal holders, of the securities.

b. Street Name Holders

We may terminate a global security or issue securities that are not issued in global form. In these cases, investors may choose to hold their securities in their own names or in “street name.” Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we or any applicable trustee or depository will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we or any such trustee or depository will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

c. Legal Holders

Our obligations, as well as the obligations of any applicable trustee or third party employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with its participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences of a default or of our obligation to comply with a particular provision of an indenture, or for other purposes. In such an event, we would seek approval only from the holders, and not the indirect holders, of the securities. Whether and how the legal holders contact the indirect holders is up to the legal holders.

d. Special Considerations for Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form because the securities are represented by one or more global securities or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- how it would handle a request for the holders' consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depository's rules and procedures will affect these matters.

e. Global Securities

A global security is a security that represents one or any other number of individual securities held by a depository. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we issue to, deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depository. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depository for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depository, its nominee or a successor depository, unless special termination situations arise. We describe those situations below under "Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depository, or its nominee, will be the sole registered owner and legal holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depository or with another institution that does. Thus, an investor whose security is represented by a global security will not be a legal holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued as a global security, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

f. Special Considerations for Global Securities

As an indirect holder, an investor's rights relating to a global security will be governed by the account rules of the investor's financial institution and of the depository, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depository that holds the global security.

If securities are issued only as global securities, an investor should be aware of the following:

- an investor cannot cause the securities to be registered in his or her name, and cannot obtain nonglobal certificates for his or her interest in the securities, except in the special situations we describe below;
- an investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;

- an investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;
- an investor may not be able to pledge his or her interest in the global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- the depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in the global security;
- we and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in the global security, nor will we or any applicable trustee supervise the depositary in any way;
- the depositary may, and we understand that DTC will, require that those who purchase and sell interests in the global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and
- financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in the global security, may also have their own policies affecting payments, notices and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

g. Special Situations When a Global Security Will Be Terminated

In a few special situations described below, a global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own names, so that they will be direct holders. We have described the rights of holders and street name investors above.

Unless we provide otherwise in the applicable prospectus supplement, the global security will terminate when the following special situations occur:

- if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days;
- if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

The applicable prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the prospectus supplement. When a global security terminates, the depositary, and neither we nor any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may also sell equity securities covered by this registration statement in an “at the market offering” as defined in Rule 415 under the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price, either:

- on or through the facilities of Nasdaq or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- other than on Nasdaq or such other securities exchanges or quotation or trading services.

Such at the market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents’ or underwriters’ compensation;
- any public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to this offering, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on any exchange or over-the-counter market or otherwise.

Any underwriters who are qualified market makers on Nasdaq may engage in passive market making transactions in the securities on Nasdaq in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, certain legal matters in connection with the offering and the validity of the securities offered by this prospectus, and any supplement thereto, will be passed upon by Cooley LLP. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements of Flex Pharma, Inc. appearing in Flex Pharma, Inc.'s Annual Report (Form 10K) for the year ended December 31, 2018, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You should rely only on the information contained in this prospectus or incorporated by reference. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy the registration statement, as well as any other document filed by us with the SEC, at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC, including Flex. The address of the SEC website is www.sec.gov.

We maintain a website at www.flex-pharma.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-36812. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

- our Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on March 6, 2019;
- our Annual Report on Form 10-K/A for the year ended December 31, 2018, filed with the SEC on April 16, 2019;
- our Current Reports on Form 8-K filed with the SEC on January 4, 2019 and February 15, 2019, to the extent the information in such reports is filed and not furnished; and
- the description of our common stock contained in our Registration Statement on Form 8-A, filed with the SEC on January 23, 2015, including any amendments or reports filed for the purposes of updating this description.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You may request a copy of these filings by writing us at 31 St. James Avenue, 6th Floor, Boston, MA 02116 or telephoning us at (617) 874-1821.



**Warrants to purchase up to 142,711 shares of common stock
and
Up to 142,711 shares of common stock issuable upon the exercise of the Warrants**

PROSPECTUS SUPPLEMENT

July 1, 2021